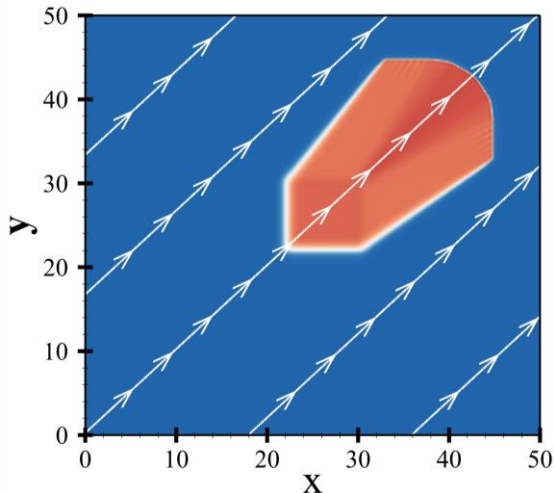
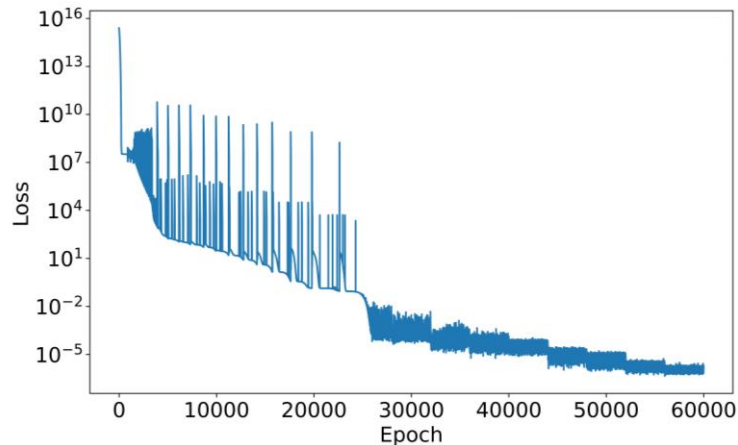


(a)



(b)



Ground truth

$$\frac{\partial \bar{T}}{\partial t} = 1.10 \left[ \frac{\partial^2 \bar{T}}{\partial x^2} + \frac{\partial^2 \bar{T}}{\partial y^2} \right] + e^{\bar{T}/(1+0.30\bar{T})} - 0.20\bar{T} + 7.0711 \left[ \frac{\partial \bar{T}}{\partial x} + \frac{\partial \bar{T}}{\partial y} \right]$$

SINDy-W

$$\frac{\partial \bar{T}}{\partial t} = 1.1 \left[ \frac{\partial^2 \bar{T}}{\partial x^2} + \frac{\partial^2 \bar{T}}{\partial y^2} \right] + 1.0 e^{\bar{T}/(1+0.30\bar{T})} - 0.20 \bar{T} + 7.0711 \left[ \frac{\partial \bar{T}}{\partial x} + \frac{\partial \bar{T}}{\partial y} \right]$$

SINDy-W/o

$$\frac{\partial \bar{T}}{\partial t} = 1.10 \left[ \frac{\partial^2 \bar{T}}{\partial x^2} + \frac{\partial^2 \bar{T}}{\partial y^2} \right] + 0.18666 e^{\bar{T}/(1+0.20\bar{T})} + 0.81714 e^{\bar{T}/(1+0.40\bar{T})} - 0.1932\bar{T} + 7.0711 \left[ \frac{\partial \bar{T}}{\partial x} + \frac{\partial \bar{T}}{\partial y} \right]$$

ADAM-SINDy

$$\frac{\partial \bar{T}}{\partial t} = 1.10 \left[ \frac{\partial^2 \bar{T}}{\partial x^2} + \frac{\partial^2 \bar{T}}{\partial y^2} \right] + 1.0 e^{\bar{T}/(1+0.30\bar{T})} - 0.20 \bar{T} + 7.0711 \left[ \frac{\partial \bar{T}}{\partial x} + \frac{\partial \bar{T}}{\partial y} \right]$$